

**ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONSTRUCTION PERMIT**

Permit No. 0073-AC019

Issue Date: January 3, 2001

**BP Exploration (Alaska), Inc.
2000-2001
Trail Blazer Winter NPR-A Exploration Program**

The Department of Environmental Conservation, under the authority of AS 46.03, AS 46.14, and 18 AAC 50.315, issues an Air Quality Construction Permit to:

Permittee: **BP Exploration (Alaska), Inc.
900 East Benson Boulevard
P.O. Box 196612
Anchorage, AK 99519-6612**

Location: North Slope of Alaska

The project authorized by this permit consists of exploratory drilling and well testing activity in conjunction with the 2000-2001 Trail Blazer NPR-A Winter Exploratory Drilling Program.

This construction permit imposes owner-requested limits, as provided for in 18 AAC 50.305(a)(4).

John F. Kuterbach, Manager
Air Permits Program

Date

PERMIT TERMS AND CONDITIONS

This permit is effective for the 2000-2001 winter drilling season, which lasts from permit issuance until seasonal thaw forces the permittee to abandon the ice roads and ice pads in the spring of 2001.

The permittee may operate up to eight drilling and testing operations from ice pads on the North Slope of Alaska in areas identified in the permit. In the 2000-2001 winter drilling season the permittee may operate in the NPR-A area.

1. Trail Blazer Pad A #1—Sec 14, T 14N, R3W Umiat Meridian, UTM Easting 517 km, Northing 7,810 km.
2. Trail Blazer Pad B #1—Sec 25, T 12N, R3W Umiat Meridian, UTM Easting 517 km, Northing 7,806 km
3. Trail Blazer Pad C #1—Sec 28, T 12N, R3W Umiat Meridian, UTM Easting 513 km, Northing 7,807 km
4. Trail Blazer Pad D #1—Sec 1, T 12N, R4W Umiat Meridian UTM Easting 508 km, Northing 7,813 km
5. Trail Blazer Pad E #1—Sec 4, T 12N, R3W Umiat Meridian UTM Easting 513 km, Northing 7,813 km
6. Trail Blazer Pad F #1—Sec 1, T 12N, R3W Umiat Meridian UTM Easting 518 km, Northing 7,813 km
7. Trail Blazer Pad G #1—UTM Easting 518 km, Northing 7,803 km
8. Trail Blazer Pad H #1—UTM Easting 510 km, Northing 7,813 km

For this permit, a single drilling and testing operation is permitted to include a collection of equipment listed in Tables 1 and 2.

A. Standard Permit Conditions

1. The Permittee shall comply with each permit term and condition; noncompliance constitutes a violation of AS 46.14, 18 AAC 50, and the Clean Air Act and is grounds for:
 - a. An enforcement action;
 - b. Permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or
 - c. Denial of an operating permit application.
2. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.
3. Each permit term or condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.
4. Compliance with the permit terms and conditions is considered to be compliance with those requirements that are:
 - a. Included and specifically identified in the permit; or

- b. Determined in writing in the permit to be inapplicable.
- 5. The permit may be modified, reopened, revoked and reissued, or terminated for cause; a request by the permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- 6. The permit does not convey any property rights of any sort, nor any exclusive privilege.
- 7. The Permittee shall allow an officer or employee of the Department, or an inspector authorized by the Department, upon presentation of credentials and at reasonable times, with the consent of the owner or operator, to:
 - a. Enter upon the premises where a source subject to the construction permit is located or where records required by the permit are kept;
 - b. Have access to and copy any records required by the permit;
 - c. Inspect any facilities, equipment, practices, or operations regulated by or referenced in the permit; and
 - d. Sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.
- 8. The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit, or to determine compliance with the permit. Upon request, the permittee shall furnish to the Department copies of records required to be kept; the Department, in its discretion, will require the permittee to furnish copies of those records directly to the federal administrator.
- 9. The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department under this permit as required by 18 AAC 50.205.
- 10. The Permittee shall conduct source testing as requested by the Department and shall:
 - a. Use the applicable test methods set out in 40 CFR Part 60, Appendix A, and 40 CFR Part 61, Appendix B, to ascertain compliance with applicable standards and permit requirements;
 - b. Submit to the Department, within 60 days after receiving a request, and at least 30 days before the scheduled date of the tests, a complete plan for conducting the source tests;
 - c. Give the Department written notice of the tests 10 days before each series; and
 - d. Within 60 days after completion of the set of tests, submit the results, to the extent practical, in the format set out in Source Test Report Outline in Volume III, Section IV.3, of the State Air Quality Control Plan, adopted by reference in 18 AAC 50.030(8).

B. Ambient Air Quality Protection Requirements (18 AAC 50.315(3)(2))

The Permittee shall not interfere with the attainment or maintenance of the Ambient Air Quality Standards listed in 18 AAC 50.010 as follows:

11. Construct and operate the facility in accordance with this permit.

- a. For changes pursuant to 18 AAC 50.370(a), the Permittee may notify the Department pursuant to 18 AAC 50.370(b) and may implement the changes in accordance with 18 AAC 50.370(c).
- b. For other changes:
 - (1) Ask the Department if additional ambient impact assessment modeling is warranted for the proposed change.
 - (2) Within 60 days upon receiving written Department notice that modeling is warranted, prepare and submit to the Department an ambient impact assessment for the specified air contaminant and averaging period.
 - (3) The Permittee shall not make the change until the Department concurs the change will not interfere with attainment or maintenance of ambient standards and increments.

12. Build each ice pad no smaller than 600-feet length by 600-feet width in size.

13. Prohibit public access on any pad during drilling or well testing activities. To prevent public access:

- a. Post the area with lighted signs printed in English and Inupiat which say *No trespassing; Restricted Entry*. Place signs on the ice road leading to the pad, and at least one on each side of the pad at the pad edge. The Permittee may use reflective signs in lieu of lighted signs as long as they are clearly visible at nighttime and present no hazard to the public.
- b. Maintain surveillance over the area sufficient to ensure that the public is excluded. Follow the surveillance plan in Exhibit B.

14. At any ice pad install and operate only equipment up to the number of sources and the total cumulative rated capacity for each source group as listed in Table 1 and 2. Provide a copy of the Transportable Drilling Rig Relocation/Operation Notification provided for in Exhibit F within 10 calendar days before relocating the rig to one of the ice pads permitted by this permit.

15. Do not burn fuel with a sulfur content greater than 0.15 weight % sulfur in any equipment authorized under this permit. Do not flare natural gas with a hydrogen sulfide content greater

- than 100 ppmv. This requirement also applies for complying with 18 AAC 50.055(c).
16. Do not operate any of the equipment listed in Table 1 or Table 2 with a horizontal stack or rain cap.
 17. During well testing operations, operate internal combustion engines with a rating of greater than 600 horsepower only within 10 meters of the pad center.
 18. The Camp Power Generating Engines listed in Table 1 shall have a minimal stack height of 7.6 meters.
 19. The Camp Incinerator listed in Table 1 shall have a minimal stack height of 6.1 meters.
 20. For operation of a well test flare, either:
 - a) Ensure that no building or similar structure is located within a distance of 5 times the building height to the East to Northeast of the flare; or
 - b) Obtain Department approval of additional modeling which shows that such a configuration will not cause an ambient air quality standard violation.
 21. Do not conduct drilling and well testing operations simultaneously on the same pad. Remove the drill rig from the ice pad prior to conducting well testing operations.
 22. Flare no greater than 450 MMscf per season from all flaring activities at all Trail Blazer sites.
 23. In the 2000-2001 winter drilling season:
 - a. At any ice pad do not operate equipment longer than the total days listed for that equipment on Table 1;
 - b. At any ice pad do not burn more than quantities of fuel listed for the equipment group on Table 1 or 2; or do not operate equipment at greater rates than that exceed the maximum daily capacity as listed for the equipment group on Table 1 or 2.
 - c. The permittee may elect that each equipment group listed in Table 1 and 2 be subject to either a fuel limitation or a maximum daily capacity limitation. For each equipment group provide written notification whether the permittee elects a fuel limitation or a maximum daily capacity limitation by January 30, 2001.

TABLE 1—DRILLING OPERATIONS

Source Group	Operating Allowance for the Source Group	
	Fuel Usage (Mgal)	Maximum Daily Capacity
A. Drilling Engines Prime Movers	6.151 per day 553.6 total	123,024 hp-hr
B. Auxiliary Diesel Generators >600 hp OR	1.81 per day 163.1 total	36,240 hp-hr
Auxiliary Diesel Generators # 600 hp	1.48 per day 133.1 total	29,590 hp-hr
C. Rig Boilers and Heaters	3.43 per day 308.4 total	479.8 MMBtu
D. Camp Power Generator Engines	1.56 per day 140.4 total	31,200 hp-hr
E. One Camp Incinerator—100 lb/hr, One auxiliary burner 1.6 MMBtu/hr	0.3 per day 24.7 total	90 days ¹
F. Light Plants	0.45 per day 13.4 total	2,966 hp-hr
G. Welders	0.072 per day 6.48 total	1,440 hp-hr
H. I.C. Engines for Heaters	0.11 per day 9.50 total	2,120 hp-hr
I. Heaters	0.72 per day, 64.8 total	100.8 MMBtu
J. Logging Heaters	0.024 per day, 0.720 total	3.36 MMBtu
K. Logging I. C. Engines (# 600 hp)	0.847 per day, 25.4 total	16,944 hp-hr
L. Cement I. C. Engines (# 600 hp)	0.995 per day, 60.2 total	19,901 hp-hr
M. Misc. I. C. Engines (# 600 hp)	0.995 per day, 36.0 total	19,901 hp-hr

¹ The incinerator operations are limited to 90 days during the drilling season. There is no maximum daily capacity limit of the camp incinerator.
 BPX Trailblazer NPR-A 2000-2001 Winter Drilling Program
 Construction Permit 0073-AC019

TABLE 2—WELL TESTING OPERATIONS		
Source Group	Operating Allowance for the Source Group	
	Fuel Usage (Mgal)	Maximum Daily Capacity
A. I. C. Engines > 600 hp	3.68 per day 110.5 total	73,632 hp-hr
B. I. C. Engines # 600 hp	5.54 per day 342.6 total	110,847 hp-hr
C. Heaters	4.79 per day 252.6 total	670.56 MMBtu
D. Well Test Flare	15 MMscf/day, 450 MMscf total	15 MMscf/day
E. Frac. Unit--turbines	9.344 per day 280.3 total	54,540 hp-hr

C. 18 AAC 50.040: Federal Standards Adopted by Reference

24. Comply with the requirements of 40 CFR 60, New Source Performance Standards (NSPS) as they apply to affected facilities specified below.
25. Submit a copy of all NSPS reporting to the U.S. EPA Region 10 and the Department, as required by the applicable Federal standards. The Permittee may attach periodic federal reporting to the Facility Operating Report required by Condition 62.
26. Notify the Department of any U.S. Environmental Protection Agency- (EPA) granted waivers of NSPS emission standards, record keeping, monitoring, performance testing, or reporting requirements within 30 days after the Permittee receives a waiver.
27. Do not install any steam generating unit with a maximum heat input capacity equal to or greater than 10 million Btu/hour.
28. Do not burn sewage sludge within any incinerator permitted for the Trail Blazer project.
29. 40 CFR 60, Subpart A—Well Frac. Units with NSPS affected facility combustion turbines;

In accordance with 40 CFR 60, Subpart A and 18 AAC 50.040, for each construction, modification, or reconstruction of affected facilities and sources regulated under 40 CFR 60, notify the Department and EPA:

- a. 60 days prior or as soon as practicable before modifying facilities that would be subject to NSPS as set out in 40 CFR 60.7(a)(4);
 - b. No less than 30 days prior to conducting a demonstration of continuous monitoring system performance as set out in 40 CFR 60.7(a)(5); and
 - c. No less than 60 days prior to commencement of reconstruction or replacement of a facility, as defined in 40 CFR 60, notify the Department and EPA with information as set out in 40 CFR 60.14(d).
30. For affected facilities regulated under 40 CFR 60, maintain records of occurrence and duration of start-up, shut-down, or malfunction of an affected facility, control equipment, or monitoring equipment as set out in 40 CFR 60.7(b). Submit continuous monitoring system performance reports as set out in 40 CFR 60.7(c) and (d). Maintain a file of measurements as set out in 40 CFR 60.7(e).
 31. Provide the Department copies of EPA administrator approvals for alternative performance testing; and
 32. Provide sampling ports and platform(s), safe access to platform(s), utilities, and conduct

testing as set out under 40 CFR 60.8(c)(and (e)).

33. Furnish the Department and EPA a copy of the performance test and opacity observations as set out in 40 CFR 60.8(a) and 60.11(e)(2)-(5).
34. At all times maintain and operate each affected facility including pollution control equipment, as set out in 40 CFR 60.11(d).
35. The Permittee is prohibited from concealing a violation of any applicable NSPS standard as set out in 40 CFR 60.12.
36. For continuous monitoring systems and devices required under NSPS:
 - a. Ensure all systems and devices are installed, calibrated, and operational as set out in 40 CFR 60.13(b) prior to conducting a performance test under 40 CFR 60.8;
 - b. Ensure all continuous monitoring systems meet the minimum frequency of operation requirements set out in 40 CFR 60.13(e), and are kept in continuous operation, except for system breakdowns, repairs, calibration checks, and zero/span adjustments;
 - c. Install continuous monitoring systems to obtain representative emission or process parameters, as set out in 40 CFR 60.13(f);
 - d. Reduce continuous monitoring system data as set out in 40 CFR 60.13(h); and
 - e. Provide the Department a copy of each EPA alternative monitoring approval or relative accuracy test audit approval issued under 40 CFR 60.13(i) or (j).

D. 40 CFR 60, Subpart GG; Fired Turbines—Well Frac. Units

37. Applicability and designation of affected facilities, 40 CFR 60.330. Affected units are all stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10.1 MMBtu/hr) based on lower heating value as described in 40 CFR 60.330(a) and (b).
38. Standard for nitrogen oxides, 40 CFR 60.332(a)(2). Comply with the nitrogen oxides emission limitation as listed in 40 CFR 60.332(a)(2). The limit is $STD = 0.0150(14.4)/Y + F$; where STD is the allowable NO_x emissions (percent by volume) at 15% O₂, Y is the manufacturer's rated heat rate (kilojoules per watt-hour), and F is the emission allowance for fuel-bound nitrogen.

39. Standard for sulfur dioxide, 40 CFR 60.333. Comply with the sulfur dioxide new source performance limitation listed in 40 CFR 60.333(a) or (b) of 150-ppm exhaust concentration or 0.8% fuel sulfur content by weight, respectively. Comply with these requirements by burning fuel oil with a sulfur content no greater than 0.15 percent.
40. Monitoring of operations, 40 CFR 60.334. Except as provided for in an U.S. EPA alternative monitoring schedule or waiver, comply with 40 CFR 60.334(b) to monitor the nitrogen and sulfur content of the fuel gas. On May 15, 2000, EPA Region 10 approved of an alternative schedule for monthly monitoring of fuel sulfur content and issued a waiver for measuring the nitrogen content of fuel gas. Include with reports submitted under 40 CFR 60.7(c), information as listed in 40 CFR 60.334(c), (c)(2) and (c)(4). Keep a copy of all U.S. EPA issued monitoring waivers or custom monitoring schedules with the permit at the facility.

41. Test methods and procedures, 40 CFR 60.335.

- a. Conduct performance tests in accordance with Condition 10 as required in 40 CFR 60.335(b) and (c), or alternative test methods in accordance with 40 CFR 60.335(f).
- b. Determine compliance with the sulfur content standard using methodology as described in 40 CFR 60.335(d), except as provided for in a U.S. EPA approved alternative monitoring plan.
- c. The Permittee may propose an alternative to the reference methods in accordance with 40 CFR 60.335(f)(1). Keep a copy of each U.S. EPA issued alternative monitoring method with the permit at the facility.

E. 40 CFR 60, Subpart Kb; Diesel Storage Tanks--Temporary Fuel and Crude Storage Tanks

Applicability and designation of affected facility, 40 CFR 60.110b. Volatile organic liquid storage tanks greater than 40 cubic meters in volume (10,567 gallons) for which construction, reconstruction, or modification commenced after July 23, 1984 are subject to this Subpart as listed in 40 CFR 60.110b(a).

42. Monitoring of operations, 40 CFR 60.116b. Pursuant to 40 CFR 60.116b(a) and (b), keep readily accessible records showing the dimension of the storage vessels and an analysis showing the capacity of the storage vessel for each storage tank greater than equal to 40 cubic meters (10,567 gallons) for the life of the tank.

F. Opacity, Particulate Matter and Sulfur Compound Emission Requirements (18 AAC 50.055(a)(1), (b)(1) and (c))

43. Do not allow emissions from any fuel burning equipment to reduce visibility through the exhaust by more than 20% for a total of more than 3 minutes in any one hour.

44. Do not allow particulate matter emissions from any fuel burning equipment to exceed 0.05 grains per dry standard cubic foot.
45. Comply with 18 AAC 50.055(c), which states that sulfur compound emissions, expressed as sulfur dioxide, may not exceed 500 ppm averaged over a period of three hours. Ensure compliance with this requirement by using only natural gas fuel with a hydrogen sulfide content not to exceed 100 ppm, and by using distillate fuel oil with a sulfur content not to exceed 0.15%.

G. Air Pollution Prohibited

46. Do not allow any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.
47. Take reasonable actions to address air pollution complaints resulting from emissions at the facility.
48. Attach to the Facility Operating Report required under Condition 62 a written description of any public complaint received by BPX, their agent, or subsidiary company regarding air quality and the Trail Blazer Facility. Include in the description the date, time, nature of complaint, and measures taken to resolve the complaint.
49. Notify the Department in advance of any planned modification or replacement of the fuel burning equipment, which might result in increased potential air contaminant emissions. The notification must be in writing and must include a description of the proposed change and an estimate of any change in the quantity of emissions of each regulated air contaminant that may occur as the result of the modification or replacement.

H. Consistency with the Coastal Zone Management Program

<Reserved>

I. Compliance Monitoring Plan (includes monitoring and record keeping)

50. Provide unique identification and labels on each emission source at the facility. Maintain additional information on source category, subcategory, and unit number, as applicable, in an on-site log available to Department compliance officers.
51. **Source Groups with Fuel Consumption or Heat Input Limits.** Each day, record the total fuel consumed for each source group listed on Table 1 or 2 at each of the drilling sites for which BPX elects to have a fuel consumption or heat input limit. Calculate the total fuel consumption for the season. Keep separate records for drilling and well testing for each source group. Measure fuel consumption in a manner accurate to 100 gallons or less. Compare the total to the allowable fuel quantity specified on Table 1 or 2.

For sources for which BPX elects to have heat input limits listed on Table 1 or Table 2, multiply the fuel consumption times the average heat content of the fuel, based on higher heating value, in MMBtu/gal. Compare to the limits on Table 1 or 2.

Report fuel consumption or heat input in the facility operating report, as specified in Exhibit A.

52. **Source Groups for which the permittee elects to have Limits on Equipment Capacity (in brake hp-hr or MMBtu).** Keep daily records of hours of operation and rated equipment capacity for emission units within source groups that have daily equipment capacity limits listed on Table 1 or 2. Maintain records with units consistent with the capacity limits listed. In lieu of monitoring and recording the hours of operation, the Permittee may assume continuous operation for each day the unit operates and the nameplate equipment load or vendor specified maximum load.
53. For source groups that the permittee elects to have limits on power output, multiply the hours of operation times the rated capacity of each unit. Compare the result in horsepower-hours or MMBtu to the limits in Table 1 or 2. Report total power output as specified in the Facility Operating Report format listed in Exhibit A.
54. For equipment that the permittee elects to have a total daily limit on operation, record each operating day and each unit that operates on that day. Report the total days of operation as specified in the Facility Operating report format listed in Exhibit A.
55. Keep records of the fuel sulfur.
- For fuel supplied from either of the two North Slope topping plants, record the fuel sulfur, measured in accordance with an appropriate methodology incorporated by reference within fuel specification standard ASTM D 396-92 or D 975-94 at least once in each month of operation.
 - For fuel supplied from any other source, record the fuel sulfur, measured in accordance with an appropriate methodology incorporated by reference within fuel specification standard ASTM D 396-92 or D 975-94 for each fuel shipment. Alternatively, provide a copy of the fuel vendor's fuel oil sulfur analysis results based on appropriate ASTM methodology.
 - Measure and record flare gas sulfur concentration as H_2S and quantity of flared gas each day and total flared gas for each reservoir tested.
56. Monitor visible emissions from the flare using Method 9 from 40 CFR 60, Appendix A, at least once in each calendar week in which the flare is operated. Compare to the standard in Condition 43. Take the readings while the flare is at its maximum operating rate for the period.
57. Keep records of any public complaint, including the date, time, nature of complaint, and measures taken to resolve the complaint within ten days upon receiving a public complaint.
58. Establish a reference monument at pad center during well testing operations if the wellhead or testing equipment does not obstruct the pad center. Verify that internal combustion engines with a rating greater than 600 horsepower are only operating within 10 meters of the pad center.
59. Verify the stack heights for the Camp Power Generating Engines and the Camp Incinerator.
60. Keep records of required monitoring data and support information for at least five years after the date of the collection; support information includes calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by this permit. Keep monitoring and compliance records as

required by the Clean Air Act and applicable federal air quality regulations.

J. Reporting Requirements

61. Except for excess emission reports under Condition 64, submit test plans, reports, certifications, and notices required under this permit to the Department's Air Permits Program, Compliance Assurance Group, 610 University Avenue, Fairbanks, Alaska 99709; telephone (907) 451-2139, facsimile (907) 451-2188.
62. Send to the Department two copies of the facility operating report as specified in Exhibit A of this permit.
63. Within two days of receiving any public complaint related to emissions from the permitted equipment, report to the Department any public complaint, including the date, time, nature of complaint, and measures taken to resolve the complaint.
64. Report any excess emissions, meaning those emissions that exceed any permit condition or state emission standard, and any deviations from permit requirements to the Department as follows:
 - a. Give written notice of all excess emissions or deviations from permit requirements. Submit the notice as soon as possible and no later than two working days after the event commencement or discovery, to the Department's Air Permits Program, Attention—Excess Emission Report, 555 Cordova Street, Anchorage, AK 99501, by facsimile (907) 269-7508, or by e-mail to airreports@envircon.state.ak.us. Complete and submit the Excess Emission Report (EER) form provided in Exhibit E, or provide an alternative written notice with complete information for each element listed in the EER form. Except as provided for in Condition 64b, certify the submitted EER in accordance with 18 AAC 50.205.
 - b. The Permittee may certify the EER in accordance with 18 AAC 50.205 by attaching to the periodic Facility Operating Report required by Condition 62, the certification statement and notarized signature of the responsible official.

EXHIBIT A

FACILITY OPERATING REPORT

Submit to the Department two copies of the Facility Operating Reports no later than 30 days after the completion of the winter drilling and testing program for 2000-2001. Reporting must include activities at each ice pad. This report shall include the following information for each ice pad (all quantities must be reported, even if zero):

1. Facility Identification: Name of company, facility name, location, and permit number.

BP Exploration (Alaska), Inc.
Trail Blazer NPR-A 2000-2001 Winter Drilling Program
900 East Benson Boulevard
P.O. Box 196612
Anchorage, AK 99519-6612
Permit Number: 0073-AA019

2. The report date and the time period covered by the report.
3. Beginning and ending dates for operations at each ice pad.
4. The daily fuel consumption and total fuel consumed by each equipment pool subject to a fuel or heat input limit listed in Table 1 and 2.
5. The maximum daily capacity of each equipment pool subject to a total MMBtu limit listed in Table 1 and Table 2.
6. Total days of operation for equipment subject to a daily limit listed in Table 1.
7. Maximum daily equipment capacity in brake horsepower-hours for equipment pool subject to each capacity limit in Table 1 and 2.
8. The fuel sulfur content for each month of operation or each fuel delivery, as recorded under Condition 55.
9. The maximum flare gas hydrogen sulfide concentration and flared gas quantity for each reservoir tested.
10. Copies of Method 9 readings for all visible emission observations made for a well test flare.
11. Copies of excess emission notifications, if permittee elects to submit notifications with the facility operating report.
12. Certification in accordance with 18 AAC 50.205. The responsible official's signature does not

need to be notarized.

13. Verification that the internal combustion engines with a rating greater than 600 horsepower operated only within 10 meters of the pad center during well testing operations.
14. Verification of the stack heights for the Camp Power Generating Engines and the Camp Incinerator.

EXHIBIT B

Public Access Control Plan

The permittee has provided the following public access control plan for excluding the public under Condition 13. The Department approves the plan as provided. As a result, the area where public access is excluded consistent with this plan is not considered to be ambient air.

Note: The Public Access Control Plan refers to the area where access is restricted as the exclusion zone.

BP Exploration (Alaska), Inc.
Exploratory Drilling and Well Testing Program
Public Access Control Plan

Purpose

The purpose of this Public Access Control Plan for the BP Exploration (Alaska), Inc. (BPXA), Exploratory Drilling and Well Testing Program is to protect the general public from public health and safety hazards incident to the heavy industrial activity planned at various locations within the state jurisdiction lands in the North Slope vicinity, including leased properties held by BPXA with the National Petroleum Reserve Alaska (NPR-A). The planned activity involves exploratory drilling for potential petroleum production. BPXA has established these reasonable restrictions on general public access to attain adequate protection of public health and welfare.

BPXA is committed to fully and adequately protecting the health and safety of its work force by remaining within the standards for air exposure of the Occupational Safety and Health Administration (OSHA) and, where the general public has access, the National and Alaska Ambient Air Quality Standards (AAQS). A primary purpose of this plan is to delineate the area to be protected and controlled for occupational health and safety from the area that is subject to unrestricted, general public access where the AAQS are applicable. A secondary purpose is to ensure that reasonable measures are in place to accomplish reasonable restrictions on public access.

General Information

The BPXA Exploratory Drilling and Well Testing Program will occur at various locations on the North Slope. The drilling pad locations within the NPR-A are located approximately 14 miles southeast of Teshekpuk Lake. All drilling and testing activities will occur on ice pads with an operational area of 600 feet by 600 feet. Public access to the ice pad within this operational area is restricted. Public access is not restricted at any location outside of the operational area.

BPXA will access the ice pads by helicopter and dedicated ice road. Public access to the ice road will be controlled. Because the area is otherwise roadless, the tundra is effective as a physical barrier to prevent public access. As a practical matter, few people are traversing the area in which the BPXA drilling program will be located.

In addition to the physical barrier cited above, public access to the ice pads will be restricted using strategically located signs. These signs will be posted at the center point of each edge of the ice pad operational area and at the point of ice pad access from the ice road.

Public Access Control Measures

The area surrounding the BPXA Exploratory Drilling and Well Testing Program ice pads is remote, isolated, and physically prohibitive to travel. No established roads, trails, or cabin sites exist at or near the NPR-A ice pad locations.

Because access by snow machine is possible, bilingual signs will be posted at the center point of each edge of the ice pad operational area. A sign will also be posted at the point of ice pad access from the ice road.

The sign specifications are:

- Each sign will be 4 feet by 6 feet and will be mounted on posts.
- Each sign will be inspected reinstalled each winter and will be repaired or replaces, as necessary.
- Each sign will be free of visible obstructions.
- Each sign will read:

BP EXPLORATION AND TESTING OPERATIONS

INDUSTRIAL AREA

DANGER

DRILLING AND FLARING IN PROGRESS

NO UNAUTHORIZED VISITORS BEYOND THIS POINT

Note: Pad surveillance must be performed at least every other hour during operations.

EXHIBIT C

PERMIT APPLICATION DOCUMENTATION

April 26, 2000	Generic Exploration Drilling Air Quality Control Permit Application
July 31, 2000	Trail Blazer Winter NPR-A Exploration Program Amendment to April 2000 Exploration Permit Applications
September 5, 2000	Trail Blazer Winter NPR-A Exploration Program Surface Use Program
September 5, 2000	Trail Blazer Winter NPR-A Exploration Program Amendment II to April 2000 Exploration Permit Applications.

EXHIBIT D VISIBLE EMISSION FORMS

Visible Emissions Forms Page 1 of _____

When doing readings: Maintain a distance of at least 15 feet from the emission point; when possible while still conforming to Method 9, select a position to minimize interference between sources; if interference cannot be avoided between sources, use the least stringent opacity standard that applies to any of the sources involved; and if wet dust suppression is used, read the part of the plume where there are no visible emissions caused by water mist.

Certified Observer _____

Company _____

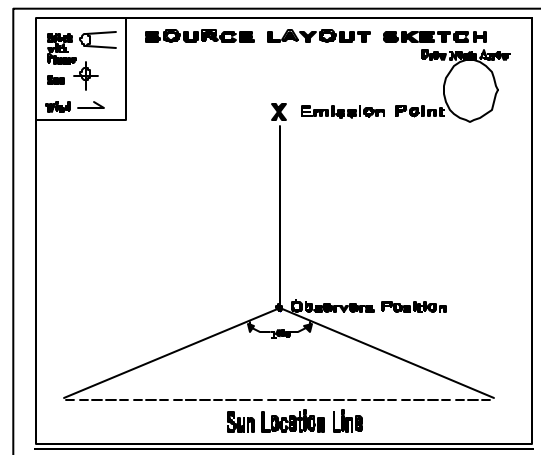
Location _____

Test No. _____ Date _____

Source _____

Operating Rate: _____

Hrs. of observation: _____



Clock Time	Initial			Final
Observer location				
Distance to discharge				
Direction from discharge				
Height of observer point				
Background description				
Weather conditions				
Wind Direction				
Wind speed				
Ambient Temperature				
Relative humidity				
Sky conditions: (clear, overcast, % clouds, etc.)				
Plume description:				
Color				
Distance visible				
Water droplet plume? (attached or detached?)				
Other information				

Use the procedures specified in 40 CFR 60, Appendix A, Method 9, to perform this observation.



Company _____ Certified Observer _____

A minimum reading is 24, every 15 seconds for a total length of 6 minutes

Observer Signature

Average Opacity Summary

BPX Trailblazer NPR-A 2000-2001 Winter Drilling Program
Construction Permit 0073-AC019

EXHIBIT E. EXCESS EMISSION NOTIFICATION FORM

Excess Emission Notification Form FAX to (907) 269-7508 ph:269-8888

Company Name: _____ Facility Name: _____

NOTE: Attach Additional Sheets If Necessary

Event Information:

Duration

Date: _____ Start Time (Military Time) _____ End Time _____ (hr:min) ____:____

Date: _____ Start Time (Military Time) _____ End Time _____ (hr:min) ____:____

Total ____:____

Cause of Event (Check all that apply):

- | | | |
|------------------------------------|--|--|
| <input type="checkbox"/> Start Up | <input type="checkbox"/> Upset Condition | <input type="checkbox"/> Control Equipment Failure |
| <input type="checkbox"/> Shut Down | <input type="checkbox"/> Scheduled Maintenance | <input type="checkbox"/> Other _____ |

Details: Describe in detail what happened. Attach additional sheets if necessary.

Sources Involved: Identify each emission source involved by name and ID number as it appears in the permit. List any control device or monitoring system affected by the event.

Source ID:	Description:
_____	_____
_____	_____
_____	_____

Emission Standard Exceeded: Identify each emission standard and permit condition exceeded during the event. Also describe the extent to which each standard or conditions was exceeded. List any known or suspected injuries or health impacts.

Standard or Condition	Limit	Exceedance
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Emission Reduction: Describe the steps taken to reduce emissions during the event.

Corrective Actions : Describe actions taken to restore the system to normal operation.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: _____

Signature: _____

Phone Number: _____

Date: ____/____/____

Excess Emission Notification Form – Fax: (907) 269-7508; Ph: (907) 269-8888

EXHIBIT F
TRANSPORTABLE DRILLING RIG RELOCATION/OPERATION NOTIFICATION

Permittee shall submit the information specified below to the Air Permits Program ten days prior to moving the drilling rig to any of the eight ice pads listed in this permit.

1. Facility Name: _____
2. Operator's Name: _____
3. Operator's Address: _____
4. Facility Contact: _____
5. Contact Telephone Number: _____
6. Permit Number: _____
7. Drilling Location: _____
8. Rig Name: _____
9. Attach an inventory of all fuel burning equipment and of all non-road engines larger than 150 hp associated with the drilling and camp activities at the pad.

Certification

“Based on information and believe formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.”

Signed this _____ day of _____, 2001, upon my oath of affirmation, before a notary of the State of Alaska.

(Responsible Company Official Date

Printed Name Title

Subscribed and sworn to before me on this _____ day of _____, 2000.

My authorization as a Notary of the State of Alaska expires on the _____ day of _____, 2001.

Notary's Signature Date

Notary's Printed Name Notary Seal